Resilient Futures Community of Practice project invites you to its first workshop:

Post-Mining Transformation
through the Fibrous Plant Economy

28 May 2018 **09h00 - 17h00**

Venue: Old Mutual House Auditorium
33 Klaasens Rd, Bishopscourt, Cape Town 7708 (map)

Credits (L-R): MediaClubSA; Jonathan Ernst|World Bank; Candice Mazzolini|CEBER; Candice Mazzolini|CEBER

Agenda

1. Introductions: Prof Haroon Bhorat
2. Expert presentations
3. Data gathering roundtables: discussion on the 4 projects:
   - The **economic** opportunities of plant biomass.
   - Identification & evaluation of downstream options for **sustainable** recovery of value &/ products from fibre-producing plants.
   - Post-mining rehabilitation: Carrots & sticks in the **law**.
   - Fibre-rich plants: A joint role of degraded mine land **remediation** & fuelling a multi-product value chain.

Please RSVP by **Monday 21 May 2018**

REGISTER

For more information, click here
http://resilientfutures.uct.ac.za

For any queries, contact Toughedah:
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Join our mailing list:

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Please see overleaf for background.

Cost: This workshop is free to attend: participants will need to please arrange their own travel and cover all associated costs. Should you require accomodation in Cape Town, and wish to add your name to the group booking at the Tsogo Southern Sun Newlands Hotel (at the UCT rate), please contact Wadia (E: wadia.joseph@uct.ac.za or T: 021 650 5022). Should you require financial assistance to cover travel costs, please contact Toughedah (E: resilientfutures@uct.ac.za).

WORKSHOP | 28 May 2018 | 9-5 | Cape Town

Sustainable Economic Diversification of Mining Land and Infrastructure:

The Case of Fibrous Plants

Background

Fibrous plants such as bamboo may be used to transform degraded land into a restorative agricultural sector and a dynamic manufacturing sector that, may provide employment opportunities, inclusive socio-economic growth and poverty reduction in mining communities beyond the life-of-mine.

The aim of this multi-disciplinary project is to determine through a Community of Practice (CoP) whether fibre-rich biomass, including bamboo, may be used to remediate degraded land in a way that is economically feasible; leading to enhanced economic complexity, the establishment of a fibrous plant micro-industry, and crucially, value-added input and output job creation. Growth of this industry would contribute to the economic goals of the NDP, by promoting employment in labour-intensive industries, diversifying the economy, and embracing South Africa's current advantages. Guided by the SDGs, the focus of this CoP is on improving the consequences of mining as a case study for diversifying the economy in the current legal framework.

This 1-day workshop incorporates findings from the "Mine Land Rehabilitation and Phytoremediation, 'Woody & Non-Woody' Plantations and Waste: Value Chain for the Future of Clean Energy in South Africa?" workshop held on 5 July 2017, and the Scheba et al report. The report highlighted the need to better understand the actual sustainable development opportunities of fibrous biomass, including bamboo, in the country - and how to overcome the major obstacles. Much more policy attention and action is necessary to support the nascent industry, and create a conducive regulatory environment that can maximise its socio-economic benefits and minimise environmental risks.

Economic

How can economic complexity be built on the basis of an understanding of local socio-economic linkages?

Economic dynamism & complexity play a key role in generating sustainable inclusive growth and poverty reduction. The shift to higher levels of economic complexity involves diversifying an economy's productive structure; achieved by harnessing and building on existing productive capabilities; a need especially apparent in mining-based economies. The development of fibrous plant production & linked downstream manufacturing activity offers a unique path to building complexity in South Africa.

Environmental

Environmental factors that influence the ability of rapidly growing, fibre-rich plants to remediate damaged & polluted land?

The potential for land remediation through repeated cultivation cycles & the nature of the most suitable biomass, must be reviewed to address the possible environmental impacts of a plant fibre-based value chain through cultivation of degraded land. Crop selection criteria include: Preference of indigenous species; plant biomass metal absorption capability & selectivity; & productivity in terms of ability to grow in degraded environments, & ease of harvesting & processing.

Legal

What regulatory barriers exist, & how can they be addressed?

A critical analysis of existing legal & regulatory frameworks will help to determine their adequacy in providing for alternative models of mine rehabilitation. Through identifying & critiquing applicable rules, the relevance & implication of particular legal rules may be determined. Assessing their alignment & support of governance structures in relation to institutions & processes, & determining the feasibility of their amendment, is crucial. More favourable models of regulation will be identified, & adaptations in the legal framework to support &/ regulate the proposed initiative will be recommended.

Engineering

What are alternatives & implications for downstream processing options?

The selection & development of viable processes & products for downstream utilisation of plant biomass must be based on a comprehensive understanding of the options (& consequences) available; taking into account environmental, socio-economic & technical drivers & constraints. Also to be identified are the various processing routes for fibre-producing plant biomass such as bamboo, flax & hemp into useful semi-fabricated & higher-end products, &/ recovery of accumulated heavy metals.

Register

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